












Gear Profile Milling Cutter Ø380 Z16

A12-150

The double gear profile Milling Cutter is a large cutter with exchangeable blades. After reassembling with new blades a reprofiling of the complete cutter has to be done, where each individual blade is probed and ground in one setup as cutting edges of a profiled milling cutter. Groups of 4 blades have the same profile, cutting - and shear angle, but individual division values. The braised carbide being very near to the steel a clearance operation with CBN wheel is necessary. The top of the cutting face of each blade has to be ground with negative rake in the same setup.



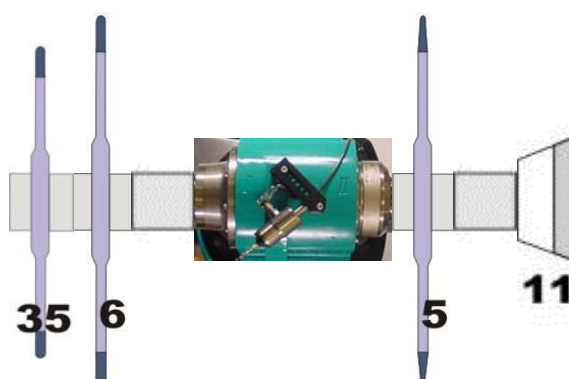
1. Cycletime for Production

Tool specifications						
Diameter 380 mm, Z 16, Length of cutting edge 30 mm, Shear Angle +5°/- 5°						
Material CARBIDE						
Operations						
Feed [mm/Min]	2000	45	45	55	70	300
Power [kW]		3	3	2	1	14
Cutting feed [m/s]		24	32	24	24	24
Used wheels						
Grinding time [s]	620	882	882	745	612	318
Total cycle time	67 Min 38					

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

2. Used Grinding Wheels

35	14F1 Ø150 D126
6	14F1 Ø200 B126
5	14EE1 Ø200 D64
11	11V9 Ø100 D64



3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEMINI DMR
 Control: Fanuc 31i
 Coolant: Synthetic Oil, pressure 6 bar
 Software: Quinto 5

responsible engineer: OP,27.3.09

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